

Claims

- [c1] 1. A method of collecting gold, comprising:
 - flowing water over a gold collecting medium located in a sluice, in order to induce a positive surface charge on the gold collecting medium;
 - feeding gold laden material into the sluice with the flowing water to induce a negative surface charge on gold particles of the gold laden material and create a slurry of gold laden material and water;
 - setting the flow rate of the slurry into the sluice such that the gold particles are attracted to the gold collecting medium; and
 - collecting the gold particles from the gold collecting medium that were attracted to gold collecting medium.
- [c2] 2. The method of claim 1, inputting water that has a PH value of between 3 and 9.
- [c3] 3. The method of claim 1, wherein the gold particles are one-sixteenth of inch or less in size.
- [c4] 4. The method of claim 1, wherein the gold collecting medium is a plastic material.

- [c5] 5.The method of claim 1, wherein the gold collecting medium is a vinyl material.
- [c6] 6.The method of claim 1, wherein the gold collecting medium includes ribs and grooves between the ribs.
- [c7] 7.The method of claim 6, wherein the gold collecting medium is a vinyl material.
- [c8] 8.The method of claim 6, wherein the gold collecting medium is a plastic material.
- [c9] 9.The method of claim 1, wherein the water has a PH value of between 3 and 9; and wherein the gold particles are one-sixteenth of inch or less in size.
- [c10] 10.The method of claim 9, wherein the gold collecting medium includes ribs and grooves between the ribs.
- [c11] 11.The method of claim 10, wherein the gold collecting medium is a vinyl material.
- [c12] 12.The method of claim 10, wherein the gold collecting medium is a plastic material.
- [c13] 13.A gold separation device, comprising:
 - a sluice having an input end and an output end;
 - a water input directed into said input end of said sluice;
 - and

a gold collecting medium in said sluice, said gold collecting medium being of a material which incurs a positive surface charge when immersed in water.

- [c14] 14. The gold separation device of claim 13, further including a hopper at said input end of said sluice.
- [c15] 15. The gold separation device of claim 14, further including a gate valve between said hopper and said sluice to control flow into said sluice.
- [c16] 16. The gold separation device of claim 13, wherein said gold collecting medium is plastic.
- [c17] 17. The gold separation device of claim 13, wherein said gold collecting medium is vinyl.
- [c18] 18. The gold separation device of claim 13, wherein said gold collecting includes ribs and grooves between said ribs.
- [c19] 19. The gold separation device of claim 13, further including a hopper at said input end of said sluice; and wherein said gold collecting includes ribs and grooves between said ribs.
- [c20] 20. The gold separation device of claim 19, wherein said gold collecting medium is vinyl.